

**CULTURAL RESOURCES SURVEY OF THE
LITTLE ALLISON CREEK WASTEWATER PUMP
STATION AND FORCE MAIN
YORK COUNTY, SOUTH CAROLINA**



CHICORA RESEARCH CONTRIBUTION 486

CULTURAL RESOURCES SURVEY OF THE LITTLE ALLISON CREEK WASTEWATER PUMP STATION AND FORCE MAIN, YORK COUNTY, SOUTH CAROLINA

Prepared By:
Michael Trinkley, Ph.D., RPA
and
Nicole Southerland

Prepared For:
Mr. Mathew Shultz
HDR Engineering, Inc.
128 S. Tryon Street, Suite 1400
Charlotte, NC 28202

CHICORA RESEARCH CONTRIBUTION 486



Chicora Foundation, Inc.
PO Box 8664
Columbia, SC 29202-8664
803/787-6910
www.chicora.org

January 25, 2008

This report is printed on permanent paper ∞

©2008 by Chicora Foundation, Inc. All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, transmitted, or transcribed in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise without prior permission of Chicora Foundation, Inc. except for brief quotations used in reviews. Full credit must be given to the authors, publisher, and project sponsor.

ABSTRACT

This study reports on an intensive cultural resources survey of an approximately 8.7 mile corridor York County, South Carolina. The work was conducted to assist HDR Engineering, Inc. and their client in complying with Section 106 of the National Historic Preservation Act and the regulations codified in 36CFR800.

The corridor is to be used by York County for the construction of a 24-inch force main and wastewater pump station. The force main runs adjacent to various roads and powerlines north of Rock Hill. The topography is undulating with mixed pine and hardwood forests the most common vegetation and severe erosion throughout the corridor.

The proposed route will require the clearing of the corridor, digging of a trench, then burial of the force main at a depth of no less than four feet. These activities will affect archaeological and historical sites that may be in the project corridor. For this study an area of potential effect (APE) 0.5 mile around the corridor was assumed.

An investigation of the archaeological site files at the S.C. Institute of Archaeology and Anthropology identified 13 sites (38YK34, 38YK 64-68, 38YK314, 38YK425, 38YK444, 38YK450, 38YK460, 38YK477, and 38YK523) in the project APE. Site 38YK34 is an Early Archaic scatter; 38YK64 is a Late Archaic scatter; 38YK65 is an unidentifiable prehistoric site; 38YK66 is an Early Archaic scatter; 38YK67 and 38YK68 are unidentifiable prehistoric scatters; 38YK314 is a Middle Archaic to Mississippian scatter; 38YK425, 38YK444, and 38YK450 are undiagnostic prehistoric scatters; 38YK460 is a twentieth century scatter; and 38YK477 and 38YK523 are nineteenth to twentieth century scatters. Sites 38YK450, 38YK460, and 38YK477 recommended additional work before a determination of

eligibility could be made, however, all the remaining sites have been determined not eligible for the National Register of Historic Places.

The S.C. Department of Archives and History GIS was consulted for any previously recorded sites. Five structures (283-1599, 283-1600, 283-1603, 283-2046, and 283-2194) and one cemetery (283-1599.01) were recorded in the APE. All six sites have been determined not eligible for the National Register of Historic Places. Site 283-1599 is the c. 1854 Allison Creek Church; 283-1599.01 is the c. 1860 Allison Creek Church Cemetery; 283-1600 is a c. 1850 house; 283-1603 is a c. 1910 house; 283-2046 is a c. 1840 house; and 283-2194 is the c. 1875 Old Lumpkin Farm.

The archaeological survey of the corridor incorporated shovel testing at 100-foot intervals along the center line of the easement, which was marked by stakes. All shovel test fill was screened through ¼-inch mesh with a total of 352 shovel tests excavated along the corridor. No shovel testing was performed along Hands Mill Highway (SC 274) at the western end of the corridor. This 1.7 mile portion of the line had been previously surveyed for a road improvement project. All areas of the corridor, even if shovel testing was not performed, were subjected to a pedestrian survey since much of the corridor had exposed clay soils at the surface.

As a result of these investigations, one site, 38YK528, was identified. This site, with all remains exposed on the surface, is an undiagnostic prehistoric lithic and twentieth century scatter. The site is recommended not eligible for the National Register.

A survey of public roads within a 0.5 mile of the proposed undertaking was conducted in an effort to identify any architectural sites over 50

years old that also retained their integrity. An architectural survey has been completed for York County, so no additional sites were found. Two of the previously recorded architectural sites, 283-1600 and 283-2194, however were not located. Site 283-1600 has been destroyed by construction of a new neighborhood. Site 283-2194 was not located; the location as shown on the GIS is questionable.

Finally, it is possible that archaeological remains may be encountered in the project area during clearing activities. Crews should be advised to report any discoveries of concentrations of artifacts (such as bottles, ceramics, or projectile points) or brick rubble to the project engineer, who should in turn report the material to the State Historic Preservation Office or to Chicora Foundation (the process of dealing with late discoveries is discussed in 36CFR800.13(b)(3)). No construction should take place in the vicinity of these late discoveries until they have been examined by an archaeologist and, if necessary, have been processed according to 36CFR800.13(b)(3).

TABLE OF CONTENTS

List of Figures		iv
Introduction		1
Natural Environment		5
<i>Physiographic Province</i>	5	
<i>Geology and Soils</i>	5	
<i>Climate</i>	6	
<i>Floristics</i>	7	
Prehistoric and Historic Background		9
<i>Previous Research</i>	9	
<i>Prehistoric Overview</i>	9	
<i>Historic Overview</i>	15	
Methods		17
<i>Archaeological Field Methods</i>	17	
<i>Architectural Survey</i>	18	
<i>Site Evaluation</i>	18	
<i>Laboratory Analysis</i>	20	
Results of Survey		21
<i>Introduction</i>	21	
<i>Archaeological Resource</i>	21	
<i>Architectural and Other Historic Resources</i>	22	
Conclusions		29
Sources Cited		31

LIST OF FIGURES

Figure

1. Project vicinity in York County	2
2. Project corridor and previously identified archaeological and architectural sites	3
3. View of the profile of the corridor	5
4. View of Dutchman Creek at the eastern portion of the corridor	6
5. View of landscaped yards along the corridor	7
6. Generalized cultural sequence for South Carolina	10
7. Portion of Mills' <i>Atlas</i> showing the project corridor	15
8. Portion of the 1950 <i>General Highway and Transportation Map of York County</i>	16
9. View of existing transmission lines adjacent to the corridor	17
10. View of corridor adjacent to Hands Mill Highway	19
11. Identified site along the corridor	21
12. Sketch map showing the identified site	22
13. View of the identified site along Mt. Gallant Road	22
14. View of Allison Creek Church	23
15. View of the Allison Creek Church Cemetery	23
16. View of the c. 1910 house	24
17. View of the c. 1840 house	24
18. Location of the c. 1850 house, now destroyed from construction	25
19. View of how the c. 1850 house appeared before being demolished	25

INTRODUCTION

This investigation was conducted by Dr. Michael Trinkley of Chicora Foundation, Inc. for Mr. Matt Ryan and Mathew Shultz of HDR Engineering, Inc. in Charlotte, North Carolina. The work was conducted to assist HDR Engineering, Inc., and their client, York County, comply with Section 106 of the National Historic Preservation Act and the regulations codified in 36CFR800.

The project site consists of a corridor measuring about 8.7 miles, situated in York County just north of Rock Hill (Figure 1). The corridor will be used for a force main, which will extend between Little Allison Creek (where the pump station will be located) and Dutchman Creek to the east.

The corridor consists of undulating land, which has areas of pine and hardwood forests, wetlands, and landscaped yards. The corridor follows both roads and existing transmission lines.

Landscape alteration, primarily clearing and digging for the placement of pipes, as well as long-term maintenance of the force main will cause damage to the ground surface and any archaeological resources that may be present in the survey area.

As a result of this project, the architectural survey uses an area of potential effect (APE) about 0.5 mile in diameter around the proposed facility. The landscape has already been visually affected by transmission lines and road improvement projects, so the addition of a subsurface line will not further detract from the integrity of standing structures.

This study, however, does not consider any future secondary impact of the project, including extension of the force main in this

portion of York County.

We were requested by Mr. John Jamison of HDR Engineering, Inc. to provide a proposal for the project on October 17, 2007. A proposal was supplied on October 20. The proposal was accepted and the signed agreement was issued on January 8, 2008. Work started on January 21, 2008.

This work included examination of the site files at the S.C. Institute of Archaeology and Anthropology. As a result of that work, 13 sites (38YK34, 38YK 64-68, 38YK314, 38YK425, 38YK444, 38YK450, 38YK460, 38YK477, and 38YK523) were located in the project APE. Site 38YK34 is an Early Archaic scatter; 38YK64 is a Late Archaic scatter; 38YK65 is an unidentifiable prehistoric site; 38YK66 is an Early Archaic scatter; 38YK67 and 38YK68 are unidentifiable prehistoric scatters; 38YK314 is a Middle Archaic to Mississippian scatter; 38YK425, 38YK444, and 38YK450 are undiagnostic prehistoric scatters; 38YK460 is a twentieth century scatter; and 38YK477 and 38YK523 are nineteenth to twentieth century scatters. Sites 38YK450, 38YK460, and 38YK477 recommended additional work before a determination of eligibility could be made, however, all the remaining sites have been determined not eligible for the National Register of Historic Places.

Initial background investigations also incorporated a review of the GIS files at the South Carolina Department of Archives and History. As a result of that work, five structures (283-1599, 283-1600, 283-1603, 283-2046, and 283-2194) and one cemetery (283-1599.01) were identified in the 0.5 mile APE. Site 283-1599 is the c. 1854 Allison Creek Church; 283-1599.01 is the c. 1860 Allison Creek Church Cemetery; 283-1600 is a c. 1850 house; 283-1603 is a c. 1910 house; 283-2046 is a c. 1840 house; and 283-2194 is the c. 1875 Old

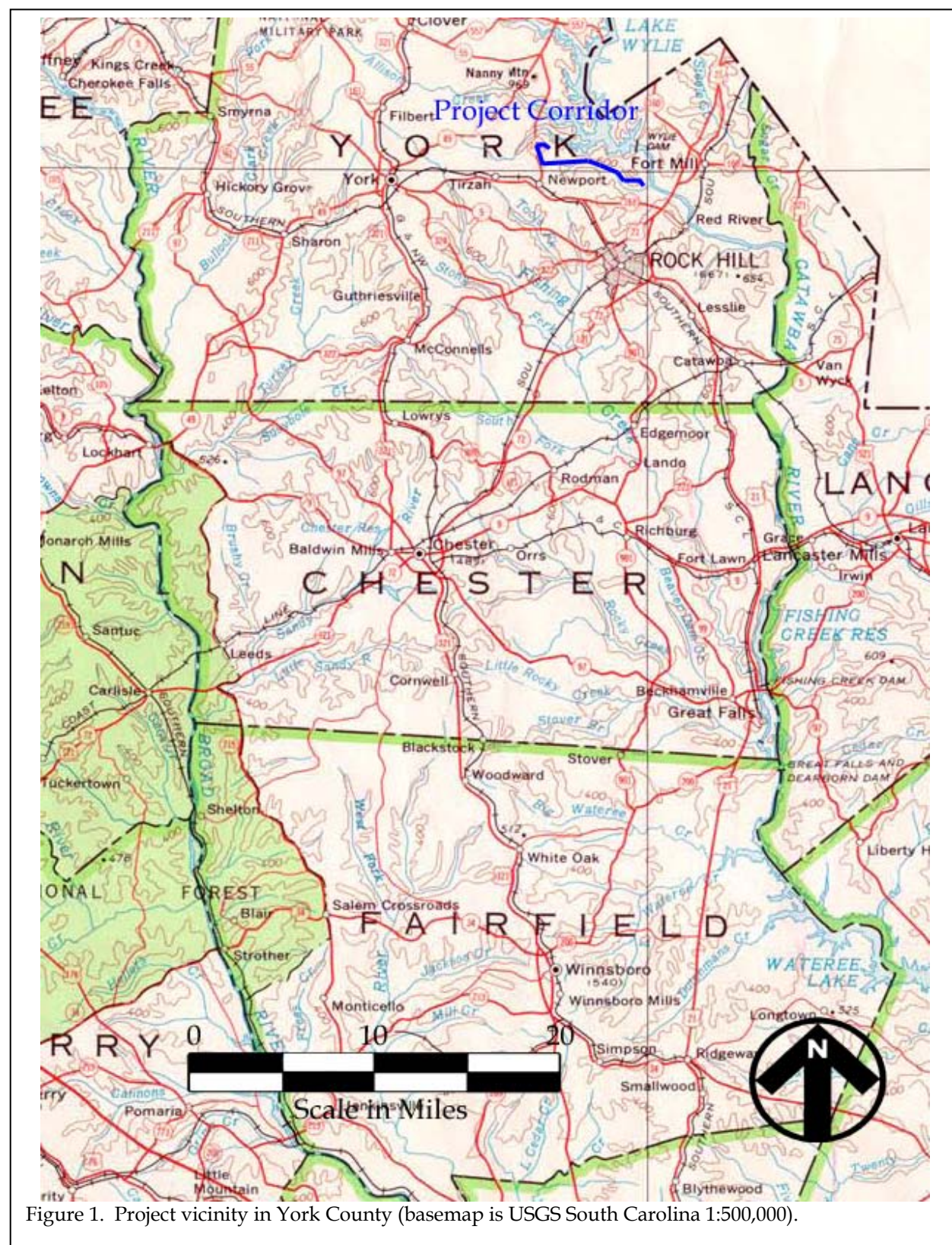


Figure 1. Project vicinity in York County (basemap is USGS South Carolina 1:500,000).

CULTURAL RESOURCES SURVEY OF THE LITTLE ALLISON CREEK WASTEWATER PUMP STATION AND FORCE MAIN

Lumpkin Farm. These structures were recorded as a result of a comprehensive county-wide architectural survey from 1991-1993 (Jaeger Company 1993).

Archival and historical research was limited to a review of secondary sources available in the Chicora Foundation files.

The archaeological survey was conducted from January 21-23, 2008 by Ms. Debi Hacker and Ms. Nicole Southerland under the direction of Dr. Michael Trinkley.

This report details the investigation of the project area undertaken by Chicora Foundation and the results of that investigation.

NATURAL ENVIRONMENT

Physiographic Province

York County, forming part of South Carolina's north central boundary with North Carolina, is bordered to the east by Mecklenburg County and Lancaster County, to the south by Chester County, to the southwest by Union County, and to the west by Cherokee County.

The county is located within the Piedmont physiographic area and has a topography ranging from nearly level to steep (Camp 1965). Slopes can range from zero to 35% (Camp 1965). Slopes within the project area range from 2 to 25% (Figure 3).

The project corridor, as previously discussed, is part of the Piedmont. Possibly part of the peneplain, the Piedmont is characterized by the dendritic stream patterns. It is also characterized by a range of metavolcanic, quartz, and quartzite materials used by Native Americans for stone tools. To the southeast of the county is the Coastal Plain, where the topography changes dramatically, the hilly upper Coastal Plain giving way to the broad expanses of relatively flat, level ground associated with the lower Coastal Plain.

These areas provide sources for Coastal Plain cherts, also used extensively for tool manufacture.

In the survey area the elevations range from about 510 to 730 feet above mean sea level (AMSL). The lowest areas slope down toward the Catawba River, just east of the corridor.

Geology and Soils

Most of the rocks of the Piedmont are gneiss and schist, with some marble and quartzite (Hasseltun 1974). Some less intensively metamorphosed rocks, such as slate, occur along the eastern part of the province from southern Virginia into Georgia. This area, called the Slate Belt, is characterized by slightly lower ground with wider river valleys. Consequently, the Slate Belt has been favored for reservoir sites (Johnson 1970), as well as prehistoric occupation (see Coe 1964). In York County many of the Piedmont soils are weathered from argillites rich in silica and alumina. Other soils are formed in saprolite that weathered from crystalline rocks and "Carolina slates." Soils from the river floodplains formed in sediment that washed from the uplands of the Piedmont province.

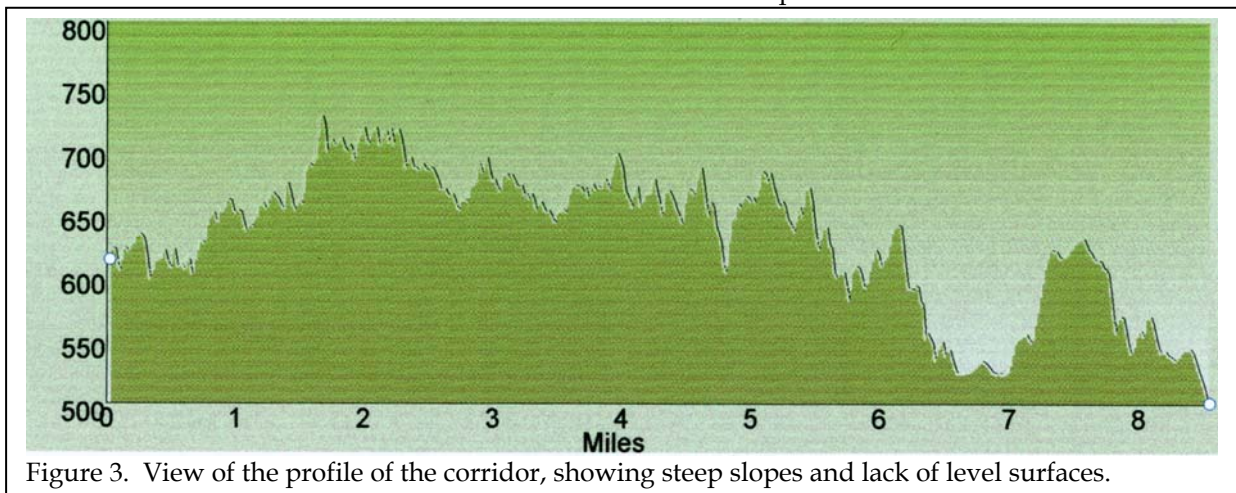


Figure 3. View of the profile of the corridor, showing steep slopes and lack of level surfaces.

CULTURAL RESOURCES SURVEY OF THE LITTLE ALLISON CREEK WASTEWATER PUMP STATION AND FORCE MAIN

The project corridor crosses eleven different types of soils, all of which are eroded to severely eroded with slopes from 6 to 35% (Camp 1965). Two of the soils, the Worsham and Elbert

in depth over a strong brown (7.5YR5/6) sandy clay loam to a depth of 1.0 foot.



Figure 4. View of Dutchman Creek at the eastern portion of the corridor.

Series, are poorly drained. Worsham soils have an Ap horizon of black (2.5Y2/0) sandy loam to a depth of 0.4 foot over a dark gray (10YR4/1) sandy loam to 0.9 foot in depth. Elbert soils have an Ap horizon of very dark gray (10YR3/1) to 0.7 foot in depth over a very dark grayish brown (10YR3/2) clay to 2.2 feet in depth.

Moderately well drained (Helena, Iredell, Mecklenburg, and Vance) and well drained (Appling, Cecil, Enon, Lloyd, and Wilkes) soils make up the remainder of the corridor. Helena soils have an Ap horizon of brown (10YR5/3) sandy loam to 0.6 foot in depth over a light yellowish brown (2.5Y6/4) sandy loam to 0.9 foot in depth. Iredell soils have an Ap horizon of very dark grayish brown (10YR3/2) sandy loam to a depth of 0.4 foot over a dark grayish brown (2.5Y4/4) sandy loam to 0.8 foot in depth. The Mecklenburg Series has an Ap horizon of dark brown (7.5YR4/2) loam to 0.4 foot in depth over a yellowish red (5YR4/8) clay loam to 0.9 foot in depth. Vance soils have an Ap horizon of yellowish brown (10YR5/6) sandy loam to 0.6 foot

Of the well drained soils, the Appling Series has an Ap horizon of light brownish gray (10YR6/2) sandy loam to 0.5 foot in depth over a light yellowish brown (2.5Y6/2) sandy loam to 0.8 foot in depth. Cecil soils have an Ap horizon of dark brown (10YR4/3) sandy loam to a depth of 0.5 foot over a yellowish red (5YR5/8) clay loam to a depth of 1.2 feet. Enon soils have an Ap horizon of grayish brown (10YR5/2) sandy loam to 0.6 foot in depth over a strong brown (7.5YR5/8) clay loam to 1.2 feet in depth. The Lloyd Series

has an Ap horizon of reddish brown (5YR3/4) loam to 0.7 foot in depth over a red (2.5YR4/6) clay loam to 1.4 feet in depth. Wilkes soils have an Ap horizon of dark brown (10YR4/3) sandy loam to 0.6 foot in depth over a reddish yellow (7.5YR6/6) clay loam to 1.0 foot in depth.

The 1934 *Reconnaissance Erosion Map of South Carolina* shows this area of York County having 75 to 100% of the surface gone and occasional gullied. In fact, the corridor runs through some gullies areas. These lands are describe as having firm materials – rocks exposed at the surface (Camp 1965).

Climate

Elevation, latitude, and distance from the coast work together to affect the climate of South Carolina, including the Piedmont. In addition, the more westerly mountains block or moderate many of the cold air masses that flow across the state from west to east. Even the very cold air masses that cross the mountains are warmed somewhat



Figure 5. View of landscaped yards along the corridor.

by compression before they descend on the Piedmont.

Consequently, the climate of York County is temperate. The winters are relatively mild and the summers warm and humid. Rainfall in the amount of about 46.7 inches is adequate, although less than in some neighboring counties.

Floristics

Piedmont forests generally belong to the Oak-Hickory Formation as established by Braun (1950). Regardless, the potential natural vegetation of the project area is the Oak-Hickory-Pine forest, composed of medium tall to tall forests of broadleaf deciduous and needleleaf evergreen trees (Küchler 1964). The major components of this ecosystem include hickory, shortleaf pine, loblolly pine, white oak, and post oak.

Besides mixed pines and hardwoods, the survey area is also impacted by wetlands of Big Dutchman and Little Allison creeks. Landscaped yards and highway frontage were also found along the corridor.

CULTURAL RESOURCES SURVEY OF THE LITTLE ALLISON CREEK WASTEWATER PUMP STATION AND FORCE MAIN

PREHISTORIC AND HISTORIC BACKGROUND

Previous Research

Relatively little research has been done in York County. Most of the work involves compliance surveys (Derting et al. 1991). The few surveys in vicinity of the current project corridor are also compliance dealing with roads, power lines, and water mains (Brockington 1980; Joy and Stine 2000; and Wilson 1998).

Prehistoric Overview

Paleoindian Period

The Paleoindian Period, most commonly dated from about 12,000 to 10,000 B.P., is evidenced by basally thinned, side-notch projectile points; fluted, lanceolate projectile points, side scrapers, end scrapers; and drills (Coe 1964; Michie 1977; Williams 1965). Oliver (1981, 1985) has proposed to extend the Paleoindian dating in the North Carolina Piedmont to perhaps as early as 14,000 B.P., incorporating the Hardaway Side-Notched and Palmer Corner-Notched types, usually accepted as Early Archaic, as representatives of the terminal phase. This view, verbally suggested by Coe for a number of years, has considerable technological appeal.¹ Oliver suggests a continuity from the Hardaway Blade through the Hardaway-Dalton to the Hardaway Side-Notched, eventually to the Palmer Side-Notched (Oliver 1985:199-200). While convincingly

¹ While never discussed by Coe at length, he did observe that many of the Hardaway points, especially from the lowest contexts, had facial fluting or thinning which, "in cases where the side-notches or basal portions were missing . . . could be mistaken for fluted points of the Paleo-Indian period" (Coe 1964:64). While not an especially strong statement, it does reveal the formation of the concept. Further insight is offered by Ward's (1983:63) all too brief comments on the more recent investigations at the Hardaway site (see also Daniel 1992).

argued, this approach is not universally accepted.

The Paleoindian occupation, while widespread, does not appear to have been intensive. Artifacts are most frequently found along major river drainages, which Michie interprets to support the concept of an economy "oriented toward the exploitation of now extinct mega-fauna" (Michie 1977:124). Survey data for Paleoindian tools, most notably fluted points, is somewhat dated, but has been summarized by Charles and Michie 1992). They reveal a widespread distribution across the state (see also Anderson 1992b:Figure 5.1) with at least several concentrations relating to intensity of collector activity. What is clear is that points are found fairly far removed from the origin of the raw material. Charles and Michie suggest that this may "imply a geographically extensive settlement system" (Charles and Michie 1992:247).

Although data are sparse, one of the more attractive theories that explains the widespread distribution of Paleoindian sites is the model tracking the replacement of a high technology forager (or HTF) adaptation by a "progressively more generalized band/microband foraging adaption" accompanied by increasingly distinct regional traditions (perhaps reflecting movement either along or perhaps even between river drainages) (Anderson 1992b:46).

Distinctive projectile points include lanceolates such as Clovis, Dalton, perhaps the Hardaway, and Big Sandy (Coe 1964; Phelps 1983; Oliver 1985). A temporal sequence of Paleoindian projectile points was proposed by Williams (1965:24-51), but according to Phelps (1983:18) there is little stratigraphic or chronometric evidence for it. While this is certainly true, a number of authors, such as Anderson (1992a) and Oliver (1985) have assembled impressive data sets. We are inclined to believe that while often not conclusively proven by stratigraphic excavations

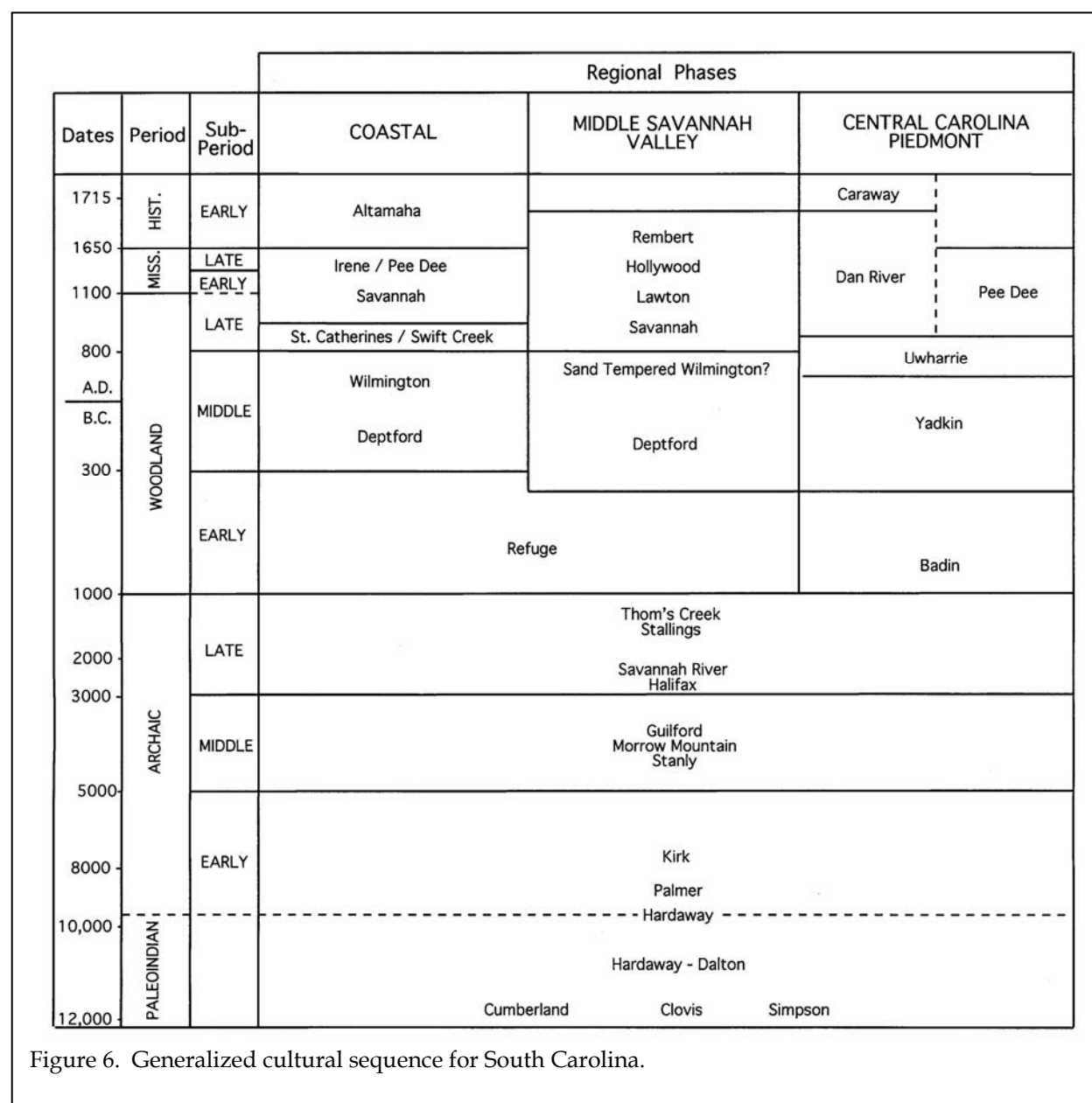


Figure 6. Generalized cultural sequence for South Carolina.

(and such proof may be an unreasonable expectation), there is a large body of circumstantial evidence. The weight of this evidence tends to provide considerable support.

Unfortunately, relatively little is known about Paleoindian subsistence strategies, settlement systems, or social organization (see, however, Anderson 1992b for an excellent overview and synthesis of what is known).

Generally, archaeologists agree that the Paleoindian groups were at a band level of society, were nomadic, and were both hunters and foragers. While population density, based on isolated finds, is thought to have been low, Walthall suggests that toward the end of the period, "there was an increase in population density and in territoriality and that a number of new resource areas were beginning to be exploited" (Walthall 1980:30).

Archaic Period

The Archaic Period, which dates from 10,000 to 3,000 B.P.², does not form a sharp break with the Paleoindian Period, but is a slow transition characterized by a modern climate and an increase in the diversity of material culture. Associated with this is a reliance on a broad spectrum of small mammals, although the white tailed deer was likely the most commonly exploited animal. Archaic period assemblages, exemplified by corner-notched and broad-stemmed projectile points, are fairly common, perhaps because the swamps and drainages offered especially attractive ecotones.

Many researchers have reported data suggestive of a noticeable population increase from the Paleoindian into the Early Archaic. This has tentatively been associated with a greater emphasis on foraging. Diagnostic Early Archaic artifacts include the Kirk Corner Notched point. As previously discussed, Palmer points may be

included with either the Paleoindian or Archaic period, depending on theoretical perspective. As the climate became hotter and drier than the previous Paleoindian period, resulting in vegetational changes, it also affected settlement patterning as evidenced by a long-term Kirk phase midden deposit at the Hardaway site (Coe 1964:60). This is believed to have been the result of a change in subsistence strategies.

Settlements during the Early Archaic suggest the presence of a few very large, and apparently intensively occupied, sites that can best be considered base camps. Hardaway might be one such site. In addition, there were numerous small sites that produce only a few artifacts — these are the "network of tracks" mentioned by Ward (1983:65). The base camps produce a wide range of artifact types and raw materials, which has suggested to many researchers long-term, perhaps seasonal or multi-seasonal, occupation. In contrast, the smaller sites are thought of as special purpose or foraging sites (see Ward 1983:67).

² The terminal point for the Archaic is no clearer than that for the Paleoindian and many researchers suggest a terminal date of 4,000 B.P. rather than 3,000 B.P. There is also the question of whether ceramics, such as the fiber-tempered Stallings ware, will be included as Archaic, or will be included with the Woodland. Oliver, for example, argues that the inclusion of ceramics with Late Archaic attributes "complicates and confuses classification and interpretation needlessly" (Oliver 1981:20). He comments that according to the original definition of the Archaic, it "represents a preceramic horizon" and that "the presence of ceramics provides a convenient marker for separation of the Archaic and Woodland periods (Oliver 1981:21). Others would counter that such an approach ignores cultural continuity and forces an artificial, and perhaps unrealistic, separation. Sassaman and Anderson (1994:38-44), for example, include Stallings and Thom's Creek wares in their discussion of "Late Archaic Pottery." While this issue has been of considerable importance along the Carolina and Georgia coasts, it has never affected the Piedmont, which seems to have embraced pottery far later, well into the conventional Woodland period. The importance of the issue in the Sandhills, unfortunately, is not well known.

Middle Archaic (8,000 to 6,000 B.P.) diagnostic artifacts include Morrow Mountain, Guilford, Stanly and Halifax projectile points. Much of our best information on the Middle Archaic comes from sites investigated west of the Appalachian Mountains, such as the work by Jeff Chapman and his students in the Little Tennessee River Valley (for a general overview see Chapman 1977, 1985a, 1985b). There is good evidence that Middle Archaic lithic technologies changed dramatically. End scrapers, at times associated with Paleoindian traditions, are discontinued, raw materials tend to reflect the greater use of locally available materials, and mortars are initially introduced. Associated with these technological changes there seem to also be some significant cultural modifications. Prepared burials begin to more commonly occur and storage pits are identified. The work at Middle Archaic river valley sites, with their evidence of a diverse floral and faunal subsistence base, seems to stand in stark contrast to Caldwell's Middle Archaic "Old Quartz Industry" of Georgia and the Carolinas, where axes, choppers, and ground and polished

stone tools are very rare.

Among the most common of all Middle Woodland artifacts is the Morrow Mountain Stemmed projectile point. Originally divided into two varieties by Coe (1964:37, 43) based primarily on the size of the blade and the stem. Morrow Mountain I points had relatively small triangular blades with short, pointed stems. Morrow Mountain II points had longer, narrower blades with long, tapered stems. Coe suggested a temporal sequence from Morrow Mountain I to Morrow Mountain II. While this has been rejected by some archaeologists, who suggest that the differences are entirely related to the life-stage of the point, the debate is far from settled and Coe has considerable support for his scenario.

The Morrow Mountain point is also important in our discussions since it represents a departure from the Carolina Stemmed Tradition. Coe has suggested that the groups responsible for the Middle Archaic Morrow Mountain (and the later Guilford points) were intrusive ("without any background" in Coe's words) into the North Carolina Piedmont, from the west, and were contemporaneous with the groups producing Stanly points (Coe 1964:122-123; see also Phelps 1983:23). Phelps, building on Coe, refers to the Morrow Mountain and Guilford as the "Western Intrusive horizon." Sassaman (1995) has recently proposed a scenario for the Morrow Mountain groups that would support this west-to-east time-transgressive process. Abbott and his colleagues, perhaps unaware of Sassaman's data, dismiss the concept, commenting that the shear distribution and number of these points "makes this position wholly untenable" (Abbott et al. 1995:9).

The controversy surrounding Morrow Mountain also includes its posited date range. Coe (1964:123) did not expect the Morrow Mountain to predate 6500 B.P., yet more recent research in Tennessee reveals a date range of about 7500 to 6500 B.P. Sassaman and Anderson (1994:24) observe that the South Carolina dates have never matched the antiquity of their more western counterparts and suggest continuation to perhaps

as late as 5500 B.P. In fact, they suggest that even later dates are possible since it can often be difficult to separate Morrow Mountain and Guilford points.

A recently defined point is the MALA. The term is an acronym standing for Middle Archaic and Late Archaic, the strata in which these points were first encountered at the Pen Point site (38BR383) in Barnwell County, South Carolina (Sassaman 1985). These stemmed and notched lanceolate points were originally found in a context suggesting a single-episode event with variation not based on temporal variation. The original discussion was explicitly worded to avoid application of a typology, although as Sassaman and Anderson (1994:27) note, the "type" has spread into more common usage. There are possible connections with both the Halifax points of North Carolina and the Benton points of the middle Tennessee River valley, while the "heartland" for the MALA appears confined to the lower middle Coastal Plain of South Carolina.

The available information has resulted in a variety of competing settlement models. Some argue for increased sedentism and a reduction of mobility (see Goodyear et al. 1979:111). Ward argues that the most appropriate model is one that includes relatively stable and sedentary hunters and gatherers "primarily adapted to the varied and rich resource base offered by the major alluvial valleys" (Ward 1983:69). While he recognizes the presence of "inter-riverine" sites, he discounts explanations which focus on seasonal rounds, suggesting "alternative explanations . . . [including] a wide range of adaptive responses." Most importantly, he notes that:

the seasonal transhumance model and the sedentary model are opposite ends of a continuum, and in all likelihood variations on these two themes probably existed in different regions at different times throughout the Archaic period (Ward 1983:69).

Others suggest increased mobility during the Archaic (see Cable 1982). Sassaman (1983) has suggested that the Morrow Mountain phase people had a great deal of residential mobility, based on the variety of environmental zones they are found in and the lack of site diversity. The high level of mobility, coupled with the rapid replacement of these points, may help explain the seemingly large numbers of sites with Middle Archaic assemblages. Curiously, the later Guilford phase sites are not as widely distributed, perhaps suggesting that only certain micro-environments were used (cf. Ward [1983:68-69] who would likely reject the notion that substantially different environmental zones are, in fact, represented).

Recently Abbott et al. argue for a combination of these models, noting that the almost certain increase in population levels probably resulted in a contraction of local territories. With small territories, there would have been significantly greater pressure to successfully exploit the limited resources by more frequent movement of camps. They discount the idea that these territories could have been exploited from a single base camp without horticultural technology. Abbott and his colleagues conclude, "increased residential mobility under such conditions may in fact represent a common stage in the development of sedentism" (Abbott et al. 1995:9).

From excavations at a Sandhills site in Chesterfield County, South Carolina, Gunn and his colleague (Gunn and Wilson 1993) offer an alternative model for Middle Archaic settlement. He accepts that the uplands were desiccated from global warming, but rather than limiting occupation, this environmental change made the area more attractive for residential base camps. Gunn and Wilson suggest that the open, or fringe, habitat of the upland margins would have been attractive to a wide variety of plant and animal species.

The Late Archaic, usually dated from 6,000 to 3,000 or 4,000 B.P., is characterized by the appearance of large, square stemmed Savannah

River projectile points (Coe 1964). These people continued to intensively exploit the uplands much like earlier Archaic groups with, the bulk of our data for this period coming from the Uwharrie region in North Carolina.

One of the more debated issues of the Late Archaic is the typology of the Savannah River Stemmed and its various diminutive forms. Oliver, refining Coe's (1964) original Savannah River Stemmed type and a small variant from Gaston (South 1959:153-157), developed a complete sequence of stemmed points that decrease uniformly in size through time (Oliver 1981, 1985). Specifically, he sees the progression from Savannah River Stemmed to Small Savannah River Stemmed to Gypsy Stemmed to Swannanoa from about 5000 B.P. to about 1,500 B.P. He also notes that the latter two forms are associated with Woodland pottery.

This reconstruction is still debated with a number of archaeologists expressing concern with what they see as typological overlap and ambiguity. They point to a dearth of radiocarbon dates and good excavation contexts at the same time they express concern with the application of this typology outside the North Carolina Piedmont (see, for a synopsis, Sassaman and Anderson 1990:158-162, 1994:35).

In addition to the presence of Savannah River points, the Late Archaic also witnessed the introduction of steatite vessels (see Coe 1964:112-113; Sassaman 1993), polished and pecked stone artifacts, and grinding stones. Some also include the introduction of fiber-tempered pottery about 4000 B.P. in the Late Archaic (for a discussion see Sassaman and Anderson 1994:38-44). This innovation is of special importance along the Georgia and South Carolina coasts, but seems to have had only minimal impact in the uplands of South or North Carolina.

There is evidence that during the Late Archaic the climate began to approximate modern climatic conditions. Rainfall increased resulting in a more lush vegetation pattern. The pollen record

indicates an increase in pine, which reduced the oak-hickory nut masts that previously were so widespread. This change probably affected settlement patterning since nut masts were now more isolated and concentrated. From research in the Savannah River valley near Aiken, South Carolina, Sassaman has found considerable diversity in Late Archaic site types with sites occurring in virtually every upland environmental zone. He suggests that this more complex settlement pattern evolved from an increasingly complex socio-economic system. While it is unlikely that this model can be simply transferred to the Sandhills of South Carolina without an extensive review of site data and micro-environmental data, it does demonstrate one approach to understanding the transition from Archaic to Woodland.

Woodland Period

As previously discussed, there are those who see the Woodland beginning with the introduction of pottery. Under this scenario the Early Woodland may begin as early as 4,500 B.P. and continued to about 2,300 B.P. Diagnostics would include the small variety of the Late Archaic Savannah River Stemmed point (Oliver 1985) and pottery of the Stallings and Thoms Creek series. These sand tempered Thoms Creek wares are decorated using punctations, jab-and-drag, and incised designs (Trinkley 1976). Also potentially included are Refuge wares, also characterized by sandy paste, but often having only a plain or dentate-stamped surface (Waring 1968). Others would have the Woodland beginning about 3,000 B.P. and perhaps as late as 2,500 B.P. with the introduction of pottery that is cord-marked or fabric-impressed and suggestive of influences from northern cultures.

There remains, in South Carolina, considerable ambiguity regarding the pottery series found in the Sandhills and their association with coastal plain and piedmont types. The earliest pottery found at many sites may be called either Deptford or Yadkin, depending on the research or their inclination at any given moment.

The Deptford phase, which dates from 3050 to 1350 B.P., is best characterized by fine to coarse sandy paste pottery with a check stamped surface treatment. The Deptford settlement pattern involves both coastal and inland sites.

Inland sites such as 38AK228-W, 38LX5, 38RD60, and 38BM40 indicate the presence of an extensive Deptford occupation on the Fall Line and the Inner Coastal Plain/Sand Hills, although sandy, acidic soils preclude statements on the subsistence base (Anderson 1979; Ryan 1972; Trinkley 1980). These interior or upland Deptford sites, however, are strongly associated with the swamp terrace edge, and this environment is productive not only in nut masts, but also in large mammals such as deer. Perhaps the best data concerning Deptford "base camps" comes from the Lewis-West site (38AK228-W), where evidence of abundant food remains, storage pit features, elaborate material culture, mortuary behavior, and craft specialization has been reported (Sassaman et al. 1990:96-98; see also Sassaman 1993 for similar data recovered from 38AK157).

Further to the north and west, in the Piedmont, the Early Woodland is marked by a pottery type defined by Coe (1964:27-29) as Badin.³ This pottery is identified as having very fine sand in the paste with an occasional pebble. Coe identified cord-marked, fabric-marked, net-impressed, and plain surface finishes. Beyond this pottery, little is known about the makers of the Badin wares and relatively few of these sherds are reported from South Carolina sites.

Somewhat more information is available for the Middle Woodland, typically given the range of about 2,300 B.P. to 1,200 B.P. In the Piedmont and even into the Sand Hills, the dominant Middle Woodland ceramic type is

³ The ceramics suggest clear regional differences during the Woodland, which seem to only be magnified during the later phases. Ward (1983:71), for example, notes that there "marked distinctions" between the pottery from the Buggs Island and Gaston Reservoirs and that from the south-central Piedmont.

typically identified as the Yadkin series. Characterized by a crushed quartz temper the pottery includes surface treatments of cord-marked, fabric-marked, and a very few linear check-stamped sherds (Coe 1964:30-32). It is regrettable that several of the seemingly "best" Yadkin sites, such as the Trestle site (31An19) explored by Peter Cooper (Ward 1983:72-73), have never been published.

Yadkin ceramics are associated with medium-sized triangular points, although Oliver

vantage point of the Middle Savannah Valley Sassaman and his colleagues note that, "the Late Woodland is difficult to delineate typologically from its antecedent or from the subsequent Mississippian period" (Sassaman et al. 1990:14). This situation would remain unchanged until the development of the South Appalachian Mississippian complex (see Ferguson 1971).

Historic Overview

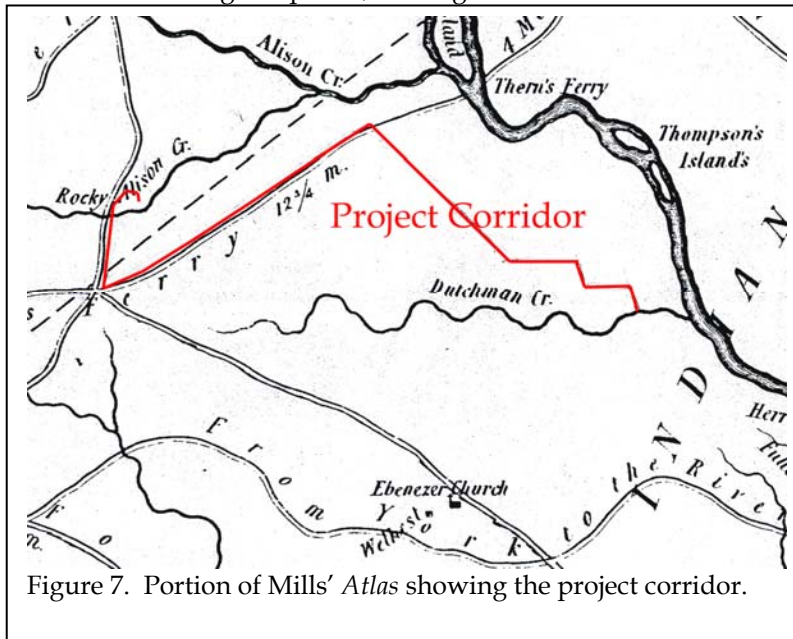


Figure 7. Portion of Mills' Atlas showing the project corridor.

(1981) suggests that a continuation of the Piedmont Stemmed Tradition to at least 1650 B.P. coexisted with this Triangular Tradition. The Yadkin in South Carolina has been best explored by research at 38SU83 in Sumter County (Blanton et al. 1986) and at 38FL249 in Florence County (Trinkley et al. 1993)

In some respects the Late Woodland (1,200 B.P. to 400 B.P.) may be characterized as a continuation of previous Middle Woodland cultural assemblages. While outside the Carolinas there were major cultural changes, such as the continued development and elaboration of agriculture, the Carolina groups settled into a lifeway not appreciably different from that observed for the previous 500-700 years. From the

York County, part of Anson County, North Carolina in 1750, was first settled by Scotch-Irish settlers who also inhabited the counties of Chester and Lancaster. In 1763, the lands of modern York County became Mecklenburg County, North Carolina, and finally Tryon County, North Carolina. It was in 1772 when the boundary dispute between the Carolinas was settled and gave York County to South Carolina.

After the Revolution, agriculture remained as the predominant industry, although gold mining became an important industry during the nineteenth century. York County was ranked fourth in the production of gold in the state of South Carolina (Catawba Regional Planning Council 1975). By 1826, cotton was the principal crop grown in York County with other staples of wheat, corn, rye, and tobacco also bringing money into the economy (Mills 1826). It is also at this time that Mills (1826) reports that no other Indian settlements existed in the district except those on the Catawba River. Mills *Atlas* of 1825 fails to show any settlements along the project corridor (Figure 7).

The nineteenth century in York County saw a significant population increase due to the black slaves used as labor for the rising cotton market (York County Census 1860). In 1860, almost half of the County's population was slave

labor (York County Census 1860). The boom in York County's economy was no doubt due to the establishment of roads and the arrival of the Charlotte and South Carolina Railroad in 1852. The line operated for ten years, bringing new goods and services to York County until it was destroyed during the Civil War (Rock Hill School District No. 3 1970).

Although only one battle, Nation Ford, was fought during the Civil War in York County, growth for the county decreased significantly. Reconstruction after the war forced many farmers to downsize their already small farms.

In 1880, the Rock Hill Cotton Factory was built to become the first steam-powered cotton factory in South Carolina. This led to an expansion of agriculture and industry and eventually led to the construction of other factories including the Anderson Automobile and the Fort Mill Manufacturing Company, which was the forerunner of Springs Industries.

York County's industry remained constant until the 1920s when the years of farming cotton began to erode the soil and destruction by the boll weevil further damaged cotton production. The Great Depression further pushed the County into stagnation.

York County became heavily dependent on industrial sites, including the Catawba Dam and Power Plant which eventually caused the establishment of the Duke Power Company that is still in use today (Kissane and Kissane 1992). A series of dams and hydroelectric facilities were constructed on the Catawba River in North and South Carolina, which revitalized the economy once again.

By 1941, York County was one of the five most industrialized

counties in South Carolina (Petty 1975). The 1950 *General Highway and Transportation Map of York County* shows many structures in vicinity of the project corridor (Figure 8). All of the structures are shown on roads, which the corridor follows for most of its length. No remains of these structures were found in the easement. In the early 1980s, the county ranked thirty-second in South Carolina for cash receipts from agriculture (Petty 1975) and at this time several institutions of higher learning were established to further continue the increase in York County's economy.

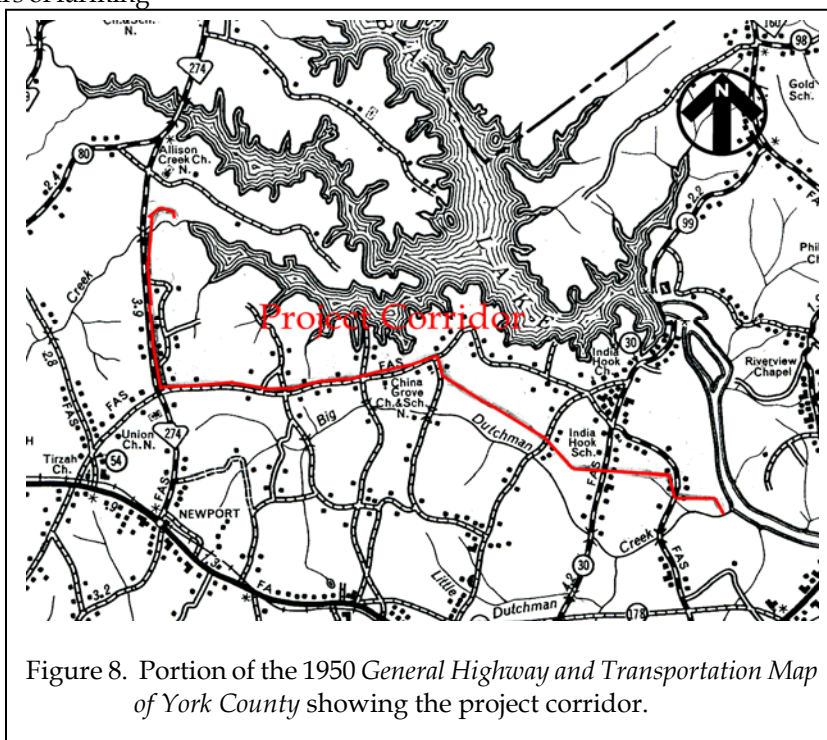


Figure 8. Portion of the 1950 *General Highway and Transportation Map of York County* showing the project corridor.

METHODS

Archaeological Field Methods

The initially proposed field techniques involved the placement of shovel tests at 100-foot intervals along the center line of the easement.

All soil would be screened through ¼-inch mesh, with each test numbered sequentially. Each test would measure about 1 foot square and would normally be taken to a depth of at least 1.0 foot or until subsoil was encountered. All cultural remains would be collected, except for mortar and brick, which would be quantitatively noted in the field and discarded. Notes would be maintained for profiles at any sites encountered.

Should sites (defined by the presence of three or more artifacts from either surface survey or shovel tests within a 50 feet area) be identified, further tests would be used to obtain data on site

boundaries, artifact quantity and diversity, site integrity, and temporal affiliation. These tests would be placed at 25 to 50 feet intervals in a simple cruciform pattern until two consecutive negative shovel tests were encountered. The information required for completion of South Carolina Institute of Archaeology and Anthropology site forms would be collected and photographs would be taken, if warranted in the opinion of the field investigators.

These proposed techniques were implemented with no significant modifications. A total of 352 shovel tests were excavated along the corridor. No shovel testing was performed along Hands Mill Highway (SC 274) since it had been previously surveyed (Joy and Stine 2000), however, the corridor was still subjected to a pedestrian survey.



Figure 9. View of existing transmission lines adjacent to the corridor.

The GPS positions were taken with a WAAS enabled Garmin 76 rover that tracks up to twelve satellites, each with a separate channel that is continuously being read. The benefit of parallel channel receivers is their improved sensitivity and ability to obtain and hold a satellite lock in difficult situations, such as in forests or urban environments where signal obstruction is a frequent problem. WAAS or Wide Area

CULTURAL RESOURCES SURVEY OF THE LITTLE ALLISON CREEK WASTEWATER PUMP STATION AND FORCE MAIN

Augmentation System is a system of satellites and ground stations that provide GPS signal corrections, yielding higher position accuracy – generally an accuracy of 10 feet or better 95% of the time.

Architectural Survey

As previously discussed, we elected to use a 0.5 mile area of potential effect (APE). The architectural survey would record buildings, sites, structures, and objects that appeared to have been constructed before 1950. Typical of such projects, this survey recorded only those which have retained “some measure of its historic integrity” (Vivian n.d.:5) and which were visible from public roads.

For each identified resource, we would complete a Statewide Survey Site Form and at least two representative photographs would be taken. Permanent control numbers would be assigned by the Survey Staff of the S.C. Department of Archives and History at the conclusion of the study. The Site Forms for the resources identified during this study would be submitted to the S.C. Department of Archives and History. As previously mentioned, York County has not received a county-wide architectural survey and this is thought to be complete.

Site Evaluation

Archaeological sites will be evaluated for further work based on the eligibility criteria for the National Register of Historic Places. Chicora Foundation only provides an opinion of National Register eligibility and the final determination is made by the lead federal agency, in consultation with the State Historic Preservation Officer at the South Carolina Department of Archives and History.

The criteria for eligibility to the National Register of Historic Places is described by 36CFR60.4, which states:

the quality of significance in

American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and

a. that are associated with events that have made a significant contribution to the broad patterns of our history; or

b. that are associated with the lives of persons significant in our past; or

c. that embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

d. that have yielded, or may be likely to yield, information important in prehistory or history.

National Register Bulletin 36 (Townsend et al. 1993) provides an evaluative process that contains five steps for forming a clearly defined explicit rationale for either the site’s eligibility or lack of eligibility. Briefly, these steps are:

- identification of the site’s data sets or categories of archaeological information such as ceramics, lithics, subsistence remains, architectural remains, or sub-surface features;

- identification of the historic context applicable to the site, providing a framework for the evaluative process;
- identification of the important research questions the site might be able to address, given the data sets and the context;
- evaluation of the site's archaeological integrity to ensure that the data sets were sufficiently well preserved to address the research questions; and
- identification of important research questions among all of those which might be asked and answered at the site.

This approach, of course, has been developed for use documenting eligibility of sites being actually nominated to the National Register of Historic Places where the evaluative process must stand alone, with relatively little reference to other documentation and where typically only one site is being considered. As a result, some aspects of the evaluative process have been summarized, but we have tried to focus on an archaeological site's ability to address significant research topics within the context of its available data sets.

For architectural sites, the evaluative process was somewhat different. Given the

relatively limited architectural data available for most of the properties, we focus on evaluating these sites using National Register Criterion C, looking at the site's "distinctive characteristics." Key to this concept is the issue of integrity. This means that the property needs to have retained, essentially intact, its physical identity from the historic period.

Particular attention would be given to the integrity of design, workmanship, and materials. Design includes the organization of space, proportion, scale, technology, ornamentation, and materials. As *National Register Bulletin* 36 observes, "Recognizability of a property, or the ability of a property to convey its significance, depends largely upon the degree to which the design of the property is intact" (Townsend et al. 1993:18). Workmanship is evidence of the artisan's labor and skill and can apply to either the entire property or to specific features of the property. Finally, materials C the physical items used on and in the property C are "of paramount



Figure 10. View of corridor adjacent to Hands Mill Highway.

importance under Criterion C" (Townsend et al. 1993:19). Integrity here is reflected by maintenance of the original material and avoidance of replacement materials.

Laboratory Analysis

The cleaning and analysis of artifacts was conducted in Columbia at the Chicora Foundation laboratories. These materials have been catalogued and accessioned for curation at the South Carolina Institute of Archaeology and Anthropology, the closest regional repository. The site forms for the identified archaeological sites have been filed with the South Carolina Institute of Archaeology and Anthropology. Field notes have been prepared for curation using archival standards and will be transferred to that agency as soon as the project is complete.

Analysis of the collections followed professionally accepted standard with a level of intensity suitable to the quantity and quality of the remains. In general, the temporal, cultural, and typological classifications of historic remains follow such authors as Price (1979) and South (1977). Prehistoric materials were defined by such authors as Yohe (1996), Blanton et al. (1986), and Oliver et al. (1986).

RESULTS OF SURVEY

Introduction

As a result of this cultural resources survey one archaeological site (38YK528) was recorded (Figure 11). The site is a prehistoric and twentieth century scatter that is recommended not eligible for the National Register of Historic Places.

The architectural survey did not identify any structures or other resources that might be potentially eligible for the National Register of Historic Places. The previously recorded sites were revisited and still recommended not eligible for the National Register. One of the sites, 283-1600, appears to have been destroyed; another site, 283-2194, was not located.

Archaeological Resource

38YK528

Site 38YK528 (Figure 12) is a surface lithic and twentieth century scatter located on a ridge top in a sparse mixed pine and hardwood forest. The area had good surface visibility, providing a central GPS UTM of 494187E 3874026N (NAD27 datum).

The site was originally noticed on the surface, with red clay exposed along Mt. Gallant Road. No additional shovel testing was performed due to the compact nature of the clay.

Soils in the site area should have resembled Cecil sandy loams, which generally have an Ap horizon of dark brown (10YR4/3) sandy loam to a depth of 0.5 foot

over a yellowish red (5YR5/8) clay loam to a depth of 1.2 feet. The soil at the site, however, was a red (2.5YR4/8) clay, which in Cecil soils occurs at a depth of between 1.2 and 3.0 feet, showing the severe erosion of the area.

The site area, given the surface collection, measures about 40 feet east to west by 20 feet north to south. The site may extend north onto the property of the Mt. Gallant Elementary School, however, the collection was only noted within the force main easement.

The site is sparse, producing only 19 artifacts -- nine quartz flakes, one quartz core, four pieces of whiteware, three pieces of clear glass, and two pieces of window glass. While whiteware is generally classified as having a mean ceramic date (MCD) of 1860, the pieces found at this site appear to be much more modern; however, with no other diagnostic artifacts, it is difficult to accurately date the historic portion of the site. In addition, the prehistoric component failed to produce any diagnostic remains.

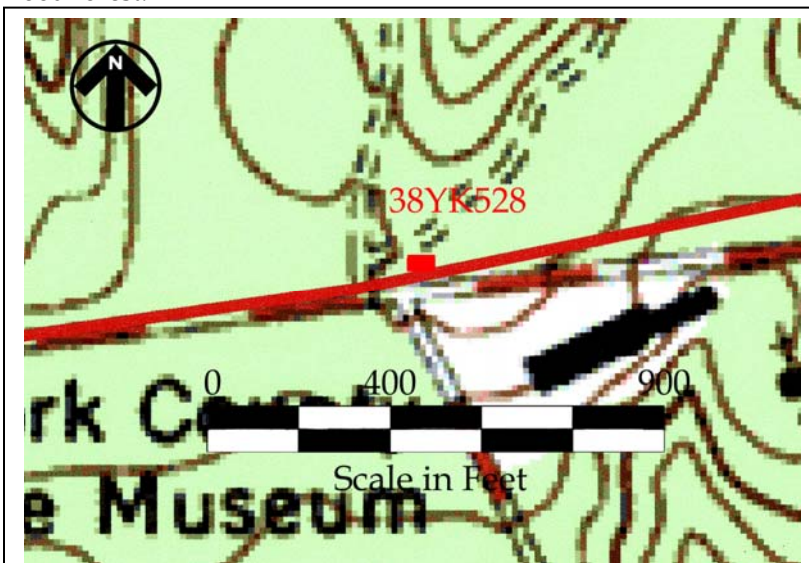


Figure 11. Identified site along the corridor.

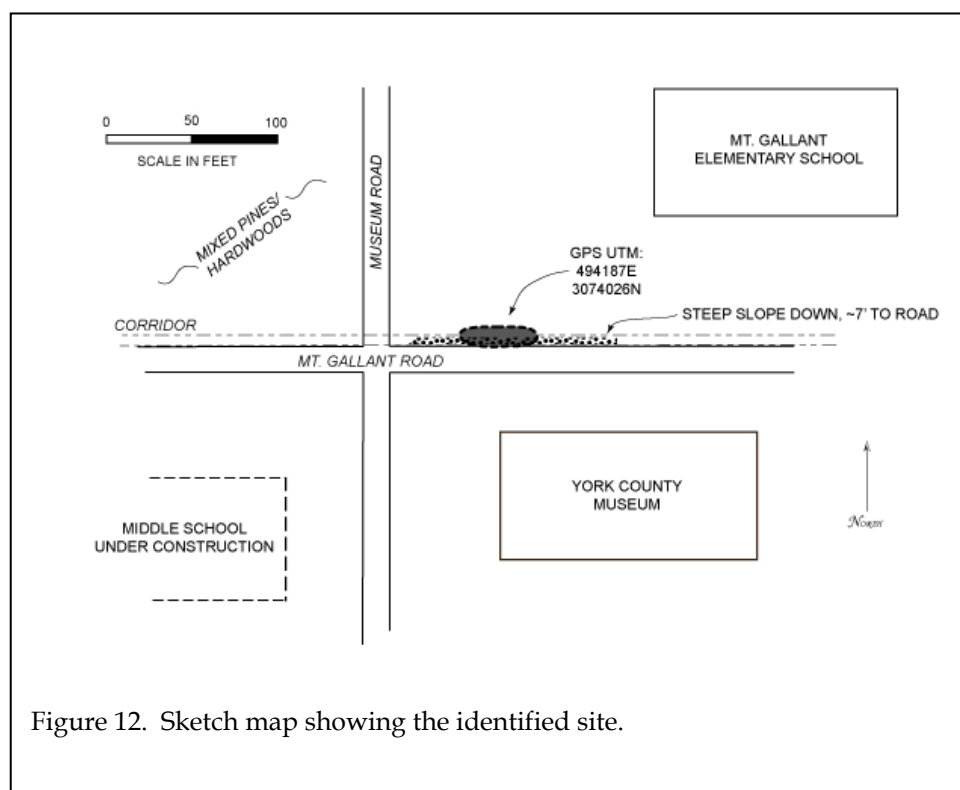


Figure 12. Sketch map showing the identified site.

With all of the artifacts located on the surface, the site lacks integrity. The adjacent road, Mt. Gallant, has recently been widened, creating a steep slope between the side and the road. The site area, being located on the property of the nearby school, is also in the process of being reseeded, so it is possible that landscaping activities have disturbed the site. Nevertheless, a tremendous amount of erosion has taken place in the area, which has caused at least 1.2 feet of soil loss. In addition, the site lacks the data sets and quantity of remains needed to address significant research questions about the inhabitants.

Site 38YK528 is recommended not eligible for the National Register of Historic Places. No additional

management activity is recommended pending the review by the lead agency and concurrence by the State Historic Preservation Office.

Architectural and Other Historic Resources

There are no previously recorded National Register buildings, districts, structures, or objects in the 0.5 mile APE. The GIS identified six resources in the APE, however all have been determined not eligible for the National Register of Historic Places. These site,

however, were revisited and reevaluated.

The structures included the c. 1854 Allison Creek Church (283-1599) (Figure 14) and c. 1860 cemetery (283-1599.01) (Figure 15), a c. 1850 house



Figure 13. View of the identified site along Mt. Gallant Road.

(283-1600), a c. 1910 house (283-1603) (Figure 16), a potentially eligible for the National Register.



Figure 14. View of Allison Creek Church.

c. 1840 house (283-2046) (Figure 17), and the Old Lumpkin Farm (283-2194) (Moreland Attobelli & Associates 2001). Two of the structures, the c. 1850 house (283-1600) (Figure 18) and the c. 1875 Old Lumpkin Farm (283-2194) were not located. Site 283-1600 has been destroyed through construction of a housing development. Figure 19 shows how the house looked before being demolished. We were unable to locate site 283-2194 – it appears that the location according to the GIS may be wrong, however the structure is determined to be not eligible, so the current undertaking will not affect this resource. The remaining structures are still recommended not eligible for the National Register of Historic Places.



Figure 15. View of the Allison Creek Church Cemetery.

No additional structures were identified in the APE that may be



Figure 16. View of the c. 1910 house.



Figure 17. View of the c. 1840 house.



Figure 18. Location of the c. 1850 house, now destroyed from construction.



Figure 19. View of how the c. 1850 house appeared before demolished (photo taken from architectural site form).

CULTURAL RESOURCES SURVEY OF THE LITTLE ALLISON CREEK WASTEWATER PUMP STATION AND FORCE MAIN

CONCLUSIONS

This study involved the examination of a 8.7 mile corridor for a force main and pump station in York County. This work, conducted for Mr. Matt Ryan and Matthew Shultz of HDR Engineering, Inc. examined archaeological sites and cultural resources found on the proposed project corridor and is intended to assist this company and York County in complying with their historic preservation responsibilities.

As a result of this investigation, one archaeological site (38YK528) was found in the survey area. This site is a prehistoric and twentieth century scatter that is recommended not eligible for the National Register.

A survey of public roads within 0.5 mile

revealed no structures that retain the integrity for the National Register of Historic Places.

It is possible that archaeological remains may be encountered during construction activities. As always, contractors should be advised to report any discoveries of concentrations of artifacts (such as bottles, ceramics, or projectile points) or brick rubble to the project engineer, who should in turn report the material to the State Historic Preservation Office, or Chicora Foundation (the process of dealing with late discoveries is discussed in 36CFR800.13(b)(3)). No further land altering activities should take place in the vicinity of these discoveries until they have been examined by an archaeologist and, if necessary, have been processed according to 36CFR800.13(b)(3).

CULTURAL RESOURCES SURVEY OF THE LITTLE ALLISON CREEK WASTEWATER PUMP STATION AND FORCE MAIN

SOURCES CITED

Abbott, Lawrence E., Jr., John S. Cable, Mary Beth Reed, and Erica E. Sanborn

- 1995 *An Archaeological Survey and Testing of the McLean-Thompson Property Land Acquisition, and the Ambulatory Health Care Clinic Project, Fort Bragg, Cumberland County, North Carolina*. Technical Report 349. New South Associates, Stone Mountain, Georgia.

Anderson, David G.

- 1979 *Excavations at Four Fall Line Sites: The Southeastern Beltway Project*. Commonwealth Associates, Inc., Jacksonville, Michigan. Submitted to the South Carolina Department of Highways and Public Transportation, Columbia.

- 1992a A History of Paleoindian and Early Archaic Research in the South Carolina Area. In *Paleoindian and Early Archaic Period Research in the Lower Southeast: A South Carolina Perspective*, edited by David G. Anderson, Kenneth E. Sassaman, and Christopher Judge, pp. 7-18. Council of South Carolina Professional Archaeologists, Columbia.

- 1992b Models of Paleoindian and Early Archaic Settlement in the Lower Southeast. In *Paleoindian and Early Archaic Period Research in the Lower Southeast: A South Carolina Perspective*, edited by David G. Anderson, Kenneth E. Sassaman,

and Christopher Judge, pp. 28-47. Council of South Carolina Professional Archaeologists, Columbia.

Anderson, David G., Charles E. Cantley, and A. Lee Novick

- 1982 *The Mattassee Lake Sites: Archaeological Investigations Along the Lower Santee River in the Coastal Plain of South Carolina*. Commonwealth Associates, Inc., Jackson, Michigan.

Blanton, Dennis B., Christopher T. Espenshade, and Paul E. Brockington, Jr.

- 1986 *An Archaeological Study of 38SU83: A Yadkin Phase Site in the Upper Coastal Plain of South Carolina*. Garrow and Associates, Inc., Atlanta.

Braun, Lucy

- 1950 *Deciduous Forests of Eastern North America*. Hafner Publishing, New York.

Brockington, Paul

- 1980 *Test Pits in the Piedmont: An Archaeological Survey of Duke Power Company's Proposed Catawba Transmission Lines*. Research Manuscript Series 152. S.C. Institute of Archaeology and Anthropology, Columbia.

Caballero, Olga

- 1987 *Archaeological Survey of the Proposed SC 49 and SC 274 Widening, York County*. S.C. Department of Highways and

CULTURAL RESOURCES SURVEY OF THE LITTLE ALLISON CREEK WASTEWATER PUMP STATION AND FORCE MAIN

- Public Transportation.
- Cable, John
1982 Differences in Lithic Assemblages of Forager and Collector Strategies. In *Archaeological Survey and Reconnaissance Within the Ten-Year Floodpool Harry S. Truman Dam and Reservoir*, edited by Richard Taylor. Report submitted to the U.S. Army Corps of Engineers, Kansas City District.
- Caldwell, Joseph R.
1958 *Trend and Tradition in the Prehistory of the Eastern United States*. Memoir 88. American Anthropologist.
- Camp, Wallace J.
1965 *Soil Survey of York County, South Carolina*. U.S.D.A., Soil Conservation Service, Washington, D.C.
- Catawba Regional Planning Council
1975 Historic sites survey, York County. South Carolina.
- Chapman, Jefferson
1977 *Archaic Period Research in the Lower Little Tennessee River Valley, 1975: Icehouse Bottom, Harrison Branch, Thirty Acre Island, Calloway Island*. Report of Investigations 18. University of Tennessee, Knoxville
- 1985a Archaeology and the Archaic Period in the Southern Ridge-and-Valley Province. In *Structure and Process in Southeastern Archaeology*, edited by Roy S. Dickens and H. Trawick Ward, pp. 137-179. The University of Alabama Press, University.
- 1985b *Tellico Archaeology: 12,000 Years of Native American History*. Reports of Investigations 43, Occasional Paper 5, University of Tennessee, Knoxville.
- Charles, Tommy and James L. Michie
1992 South Carolina Paleo Point Data. In *Paleoindian and Early Archaic Period Research in the Lower Southeast: A South Carolina Perspective*, edited by David G. Anderson, Kenneth E. Sassaman, and Christopher Judge, pp. 242-247. Council of South Carolina Professional Archaeologists, Columbia.
- Coe, Joffre
1952 The Cultural Sequence of the Carolina Piedmont. In *Archaeology of the Eastern United States*, edited by J.B. Griffin, pp. 301-311. University of Chicago Press, Chicago.
- 1964 *The Formative Cultures of the Carolina Piedmont*. Transactions of the American Philosophical Society 54(5).
- Daniel, I. Randolph, Jr.
1992 Early Archaic Settlement in the Southeast: A North Carolina Perspective. In *Paleoindian and Early Archaic Period Research in the Lower Southeast: A South Carolina Perspective*, edited by David G. Anderson, Kenneth E. Sassaman, and Christopher Judge, pp. 68-77. Council of South Carolina Professional Archaeologists, Columbia.
- DeBow, J.D.B.
1853 *The Seventh Census of the United States: 1850*. Robert Armstrong, Washington, D.C.

SOURCES CITED

- Derting, Keith M., Sharon L. Pekar, and Charles J. Rinehart
 1991 *A Comprehensive Bibliography of South Carolina Archaeology*. Research Manuscript Series 211. S.C. Institute of Archaeology and Anthropology, University of South Carolina, Columbia.
- Ferguson, Leland G.
 1971 *South Appalachian Mississippian*. Ph.D. dissertation, University of North Carolina, Chapel Hill. University Microfilms, Ann Arbor, Michigan.
- Ferris, Robert G., editor
 1968 *Explorers and Settlers*. U.S. Department of the Interior, National Park Service, Washington, D.C.
- Goodyear, Albert C., III, James L. Michie, and Tommy Charles
 1989 The Earliest South Carolinians. In *Studies in South Carolina Archaeology*, edited by Albert C. Goodyear and Glen T. Hanson, pp. 19-52. South Carolina Institute of Archaeology and Anthropology, University of South Carolina, Columbia.
- Goodyear, Albert C., III, John H. House, and Neal W. Ackerly
 1979 *Laurens-Anderson: An Archaeological Study of the Inter-Riverine Piedmont*. Anthropological Studies 4, Occasional Papers of the Institute of Archaeology and Anthropology, University of South Carolina, Columbia.
- Gunn, Joel D. and Kathy Wilson
 1993 *Archaeological Data Recovery Investigations at Sites 38CT54 and 38CT58 Along the SC 151 Jefferson Bypass, Chesterfield County, South Carolina*. Garrow and Associates, Raleigh. Submitted to the S.C. Department of Highways and Public Transportation, Columbia.
- Hanson, Glen T., Jr.
 1982 The Analysis of Late Archaic-Early Woodland Adaptive Change Along the Middle Savannah River: A Proposed Study. *South Carolina Institute of Archaeology and Anthropology Notebook* 14:1-38.
- Hasselton, George M.
 1974 Some Reconnaissance Geomorphological Observations in Northwestern South Carolina and Adjacent North Carolina. *Geologic Notes*. 18(4):60-67.
- Jaeger Company, The
 1993 *York County Historic and Architectural Inventory Survey Report*. Gainesville, GA.
- Johnson, Thomas F.
 1970 *Paleoenvironmental Analysis and Structural Petrogenesis of the Carolina Slate Belt near Columbia, South Carolina*. Unpublished M.S. Thesis, Department of Geology, University of South Carolina, Columbia.
- Joy, Deborah and Linda France Stine
 2000 *Archaeological Survey Report: Improvements to SC 274 Between Newport and Five Points, York County, South Carolina*. Legacy Research Association, Durham, North Carolina.
- Kennedy, Joseph C.G.
 1864 *Agriculture of the United State in 1860*. Government Printing Office, Washington, D.C.

CULTURAL RESOURCES SURVEY OF THE LITTLE ALLISON CREEK WASTEWATER PUMP STATION AND FORCE MAIN

- Kissane, Amy C. and John A. Kissane
1992 *Survey Report: York County Historical and Architectural Inventory*. The Jaeger Company. Gainesville, Georgia.
- Küchler, A.W.
1964 *Potential Natural Vegetation of the Conterminous United States. American Geographical Society Special Publication 36*.
- Lepionka, Larry, Donald Colquhoun, Rochelle Marrinan, David McCollum, Mark Brooks, John Foss, William Abbott, and Ramona Grunden
1983 *The Second Refuge Site, Location 22 (38JA61), Savannah National Wildlife Refuge, Jasper County, South Carolina*. University of South Carolina, Beaufort. Submitted to National Park Service, Inter-agency Archaeological Services, Atlanta.
- Michie, James L.
1977 *The Late Pleistocene Human Occupation of South Carolina*. Unpublished Honor's Thesis, Department of Anthropology, University of South Carolina, Columbia.
- Mills, Robert
1972 [1826] *Statistics of South Carolina*. Hurlbut and Lloyd, Charleston, South Carolina. 1972 facsimile ed. The Reprint Company, Spartanburg, South Carolina.
- Moreland Altobelli and Associates, Inc.
2001 *Survey Report and Determination of Eligibility York County Road Improvement Program South Carolina Highway 274*. Moreland Altobelli and Associates, Inc.
- Oliver, Billy L.
1981 *The Piedmont Tradition: Refinement of the Savannah River Stemmed Point Type*. Unpublished Master's Thesis, Department of Anthropology, University of North Carolina, Chapel Hill.
- 1985 *Tradition and Typology: Basic Elements of the Carolina Projectile Point Sequence*. In *Structure and Process in Southeastern Archaeology*, edited by Roy S. Dickens and H. Trawick Ward, pp. 195-211. The University of Alabama Press, University.
- Oliver, Billy L., Stephen R. Claggett, and Andrea Lee Novick
1986 *Lithic Analysis*. In *Indian and Freedmen Occupation at the Fish Hall Site (38BU805), Beaufort County, South Carolina*, edited by Michael Trinkley, pp. 183-207. Research Series 1. Chicora Foundation, Inc., Columbia.
- Petty, Julian J.
1975 *The growth and distribution of population in South Carolina*. The Reprint Company, Spartanburg.
- Phelps, David S.
1983 *Archaeology of the North Carolina Coast and Coastal Plain: Problems and Hypotheses*. In *The Prehistory of North Carolina: An Archaeological Symposium*, edited by Mark A. Mathis and Jeffrey J. Crow, pp. 1-52. North Carolina Division of Archives and History, Department of Cultural Resources, Raleigh.
- Price, Cynthia
1979 *19th Century Ceramics in the Eastern Ozark Boarder Region*. Monograph Series 1. Center of

SOURCES CITED

- Archaeological Research,
Southwest Missouri University,
Springfield.
- Rock Hill School District No. 3
- 1970 *We the People* (Second Edition,
Revised), A Study of the
Processes of Local Government
as Exercised at Rock Hill, York
County, South Carolina. Rock
Hill, South Carolina: White
Printing Company.
- Ryan, Thomas M.
- 1972 *Archaeological Survey of the
Columbia Zoological Park, Richland
and Lexington Counties, South
Carolina*. Research Manuscript
Series 37. South Carolina
Institute of Archaeology and
Anthropology, University of
South Carolina, Columbia.
- Sassaman, Kenneth E.
- 1983 *Middle and Late Archaic Settlement
in the South Carolina Piedmont*.
Unpublished master's thesis.
Department of Anthropology,
University of South Carolina,
Columbia.
- 1985 A Preliminary Typological
Assessment of MALA Hafted
Bifaces from the Pen Point Site,
Barnwell County, South Carolina.
South Carolina Antiquities 17:1-17.
- 1993 *Early Woodland Settlement in the
Aiken Plateau: Archaeological
Investigations at 38AK157,
Savannah River Site, Aiken County,
South Carolina*. Savannah River
Archaeological Research Papers
3. South Carolina Institute of
Archaeology and Anthropology,
University of South Carolina,
Columbia.
- 1995 The Cultural Diversity of
Interactions Among Mid-
Holocene Societies of the
American Southeast. In *Native
American Interactions: Multiscalar
Analyses and Interpretation in the
Eastern Woodlands*, edited by
Michael Nassaney and Kenneth
E. Sassaman, pp. 174-204.
University of Tennessee Press,
Knoxville.
- Sassaman, Kenneth D. and David G. Anderson
- 1990 Typology and Chronology. In
*Native American Prehistory of the
Middle Savannah River Valley*,
edited by Kenneth E. Sassaman,
Mark J. Brooks, Glen T. Hanson,
and David G. Anderson, pp. 143-
216. Savannah River Archaeology
Research Publication 1. South
Carolina Institute of Archaeology
and Anthropology, University of
South Carolina, Columbia.
- 1994 *Middle and Late Archaic
Archaeological Records of South
Carolina: A Synthesis for Research
and Resource Management*. Council
of South Carolina Professional
Archaeologists, Columbia.
- Sassaman, Kenneth E., Mark J. Brooks, Glen T.
Hanson, and David G. Anderson
- 1990 *Native American Prehistory of the
Middle Savannah River Valley*.
Savannah River Archaeological
Research Papers 1. South
Carolina Institute of Archaeology
and Anthropology, University of
South Carolina, Columbia.
- Smith, Lynwood
- 1933 *Physiography of South Carolina*.
Unpublished M.S. Thesis,
Department of Geology,
University of South Carolina,
Columbia.

CULTURAL RESOURCES SURVEY OF THE LITTLE ALLISON CREEK WASTEWATER PUMP STATION AND FORCE MAIN

South, Stanley A.

- 1959 *A Study of the Prehistory of the Roanoke Rapids Basin*. Master's thesis, Department of Sociology and Anthropology, University of North Carolina, Chapel Hill.

- 1976 *An Archaeological Survey of Southeastern North Carolina*. *South Carolina Institute of Archaeology and Anthropology Notebook* 93.

- 1977 *Method and Theory in Historical Archaeology*. Academic Press, New York.

Taylor, Richard L. (editor)

- 1984 *Cultural Resources Survey of the Proposed Pee Dee Electric Generating Facility in Florence County, South Carolina*. Commonwealth Associates, Jackson, Michigan.

Townsend, Jan, John H. Sprinkle, Jr., and John Knoerl

- 1993 *Guidelines for Evaluating and Registering Historical Archaeological Sites and Districts*. Bulletin 36. National Park Service, National Register of Historic Places, Washington, D.C.

Trinkley, Michael

- 1976 *A Typology of Thom's Creek Pottery for the South Carolina Coast*. Unpublished M.A. Thesis, Department of Anthropology, University of North Carolina, Chapel Hill.

- 1980 *A Typology of Thom's Creek Pottery for the South Carolina Coast*. *South Carolina Antiquities* 12(1):1-35.

- 1990 *An Archaeological Context for the*

South Carolina Woodland Period. Research Series 22. Chicora Foundation, Inc., Columbia.

Trinkley, Michael, editor

- 1986 *Indian and Freedmen Occupation at the Fish Haul Site (38BU805), Beaufort County, South Carolina*. Research Series 7. Chicora Foundation, Inc., Columbia.

Trinkley, Michael and Natalie Adams

- 1994 *Middle and Late Woodland Life at Old House Creek, Hilton Head Island, South Carolina*. Research Series 42. Chicora Foundation, Inc., Columbia.

Trinkley, Michael, Debi Hacker, and Natalie Adams

- 1993 *Life in the Pee Dee: Prehistoric and Historic Research on the Roche Carolina Tract, Florence County, South Carolina*. Research Series 39. Chicora Foundation, Inc., Columbia.

United States Census

- 1860 *York County, South Carolina, Population Schedules of the Eighth Census of the United States, Roll 1228*. National Archives Publications, Washington, D.C.

United States Department of Agriculture

- 1983 *Yadkin-Pee Dee River Basin, North and South Carolina - Forest Resources*. U.S.D.A., Washington, D.C.

Vivian, Daniel J.

- n.d. *South Carolina Statewide Survey of Historic Properties*. S.C. Department of Archives and History, Columbia.

SOURCES CITED

Walthall, John A.

- 1980 *Prehistoric Indians of the Southeast: Archaeology of Alabama.* University of Alabama Press, University.

Ward, Trawick

- 1978 *The Archaeology of Whites Creek, Marlboro County, South Carolina.* Research Laboratories of Anthropology, University of North Carolina, Chapel Hill.
- 1983 Whites Creek: The Second Time Around. *South Carolina Antiquities* 15:63-65.

Waring, Antonio J., Jr.

- 1968 The Refuge Site, Jasper County, South Carolina. In *The Waring Papers: The Collected Works of Antonio J. Waring, Jr.*, edited by Stephen B. Williams, pp. 198-208. Papers of the Peabody Museum of Archaeology and Ethnology 58.

Williams, Stephen B.

- 1965 The Paleoindian Era: Proceedings of the 20th Southeastern Archaeological Conference. *Southeastern Archaeological Conference Bulletin* 2.

Wilson, K.

- 1998 *Cultural Resources Survey of a Proposed Raw Water Main, Rock Hill, York County, South Carolina.* TRC. Columbia.

Yohe, Robert M., II

- 1996 Analysis of Flaked Stone Artifacts. In *Archaeological Laboratory Methods: An Introduction*, edited by Mark Q. Sutton and Brooke S. Arkush, pp. 39-68. Kendall/Hunt Publishing, Dubuque, Iowa.

CULTURAL RESOURCES SURVEY OF THE LITTLE ALLISON CREEK WASTEWATER PUMP STATION AND FORCE MAIN

**Archaeological
Investigations**

Historical Research

Preservation

Education

Interpretation

Heritage Marketing

**Museum Support
Programs**



Chicora Foundation, Inc.
PO Box 8664 • 861 Arbutus Drive
Columbia, SC 29202-8664
Tel: 803-787-6910
Fax: 803-787-6910
Email: Chicora@earthlink.net
www.chicora.org